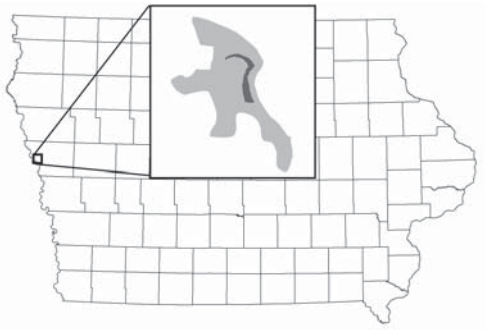
clean water starts with you.
IOWA DNR WATERSHED IMPROVEMENT

Blue Lake



Pollutant: *Algae and turbidity*

Pollution Sources: *Wildlife (geese), row crop agriculture, internal lake recycling*

What's wrong with Blue Lake?

Excessive algae blooms and poor water clarity keep the Monona County lake from meeting its state-designated standards.

These algae blooms and cloudy water make the lake less appealing, both visually and for recreational uses like swimming.

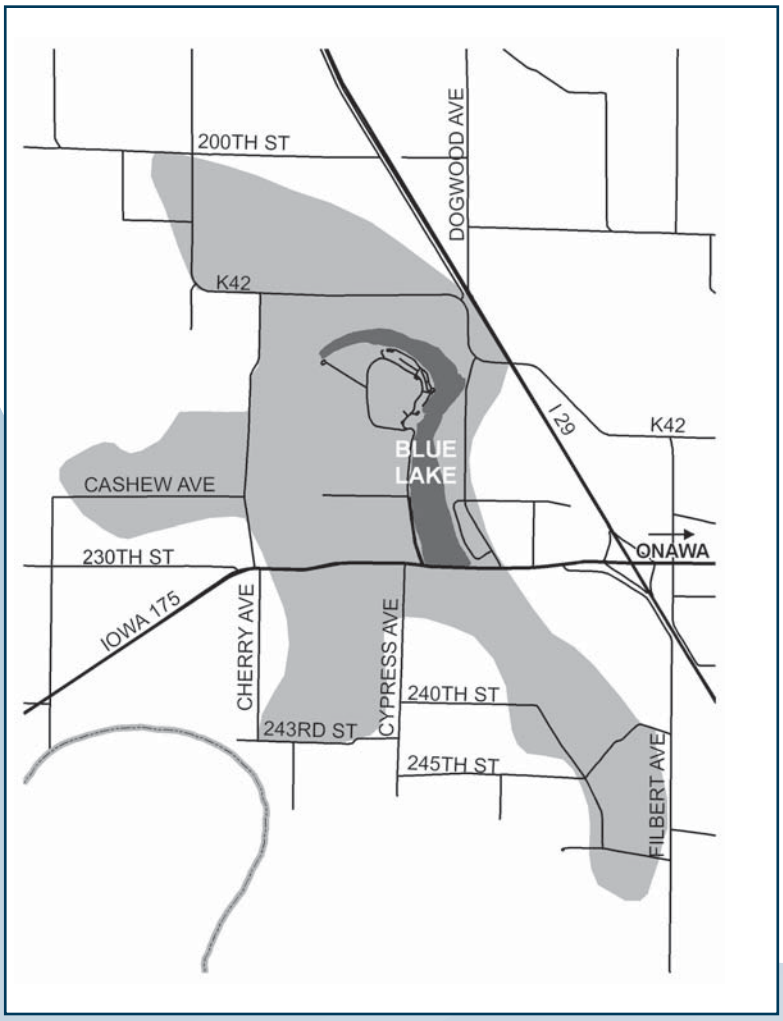
However, the algae blooms and cloudy water do not pose a specific human health threat.

What is causing the problem?

All pollution in the Blue Lake watershed (the area of land that drains into the lake) comes from nonpoint sources, or sources that are not easily traced back to a specific "point," like a wastewater treatment or industrial plant.

In the Blue Lake watershed, nonpoint sources include row crop and pasture land, septic systems, and geese.

To reduce the amount of nutrients reaching the lake, changes in managing



The map to the right shows the Blue Lake watershed shaded in gray. A watershed is an area of land that drains into a body of water. In this case, all land shaded in gray drains into Blue Lake.

The DNR tests waters throughout Iowa to make sure they are meeting state water quality standards. Those standards are in place to protect drinking water, aquatic life and recreational uses, like swimming. When a stream or lake doesn't meet those standards, the stream or lake is placed on the state's impaired waters list. The DNR then creates a plan which outlines ways Iowans can help improve the water quality in their community's lakes and streams.

DNR needs your input

Every Iowan needs the help of their fellow citizens and watershed groups to improve water quality in their community. If you or your group would like to meet with a DNR staff member to discuss water quality, please contact William Graham at (515) 281-5917 or William.Graham@dnr.iowa.gov

DNR

For more information on water quality improvement plans, please visit http://watershed.iowadnr.gov

land and geese, as well as changes in the lake, will be needed. It will take time to make these changes and to see the effects.

What can be done to improve Blue Lake?

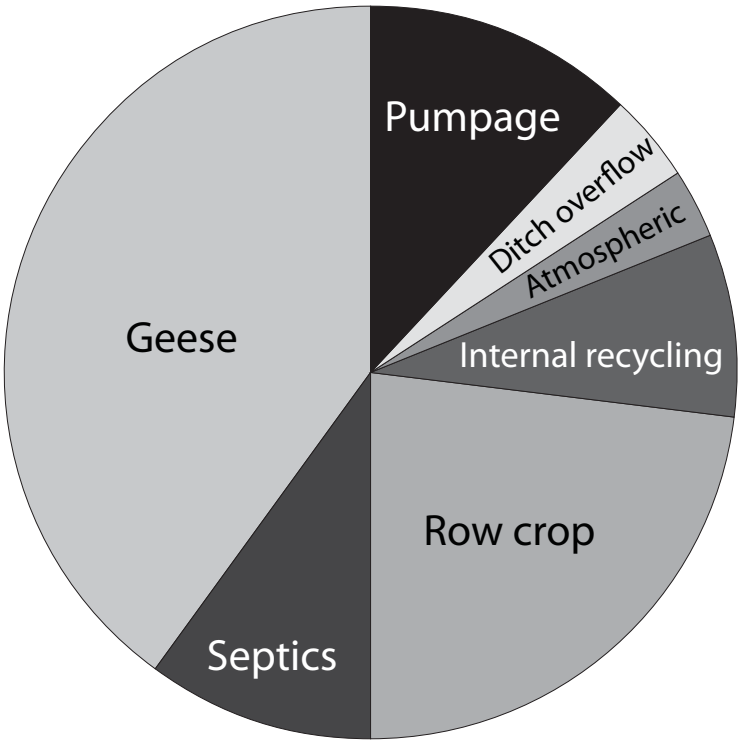
The ultimate goal is to improve water quality and remove the lake from the state's impaired waters list. To do that, the size and number of algae blooms need to be reduced and water clarity needs to improve.

Using research results and with the help of the public, the DNR has developed a water quality improvement plan (also known as a TMDL, or total maximum daily load).

The plan will help reduce the amount of pollutants reaching Blue Lake. A water quality improvement plan is a suggestion to local communities on how they can improve their area's water quality.

While the DNR has done the background research and can provide some technical and funding assistance, it is ultimately up to the watershed residents and stakeholders to take action and clean up the lake.

Sources of phosphorus in the Blue Lake Watershed



Goals for Blue Lake

The DNR has identified goals that must be met to make a significant improvement in water quality at Blue Lake.

Phosphorus must be reduced by at least 58 percent. Reducing phosphorus will result in less algae in the lake.

Water clarity, or how far you can see down in the lake, is measured by a Secchi Disk reading. In Blue Lake, the Secchi depth must increase from 0.4 meters to at least 0.7 meters.

Installing conservation practices in the watershed can help us to achieve these goals.

The DNR suggests the following management practices for Blue Lake and its watershed:

Control internal nutrient loading in the lake:

- Manage rough fish such as carp.
- Reduce the number of geese on the lake.

Land management:

- Improve nutrient management, including incorporation of nutrients into the soil.
- Continue adoption of reduced tillage systems.